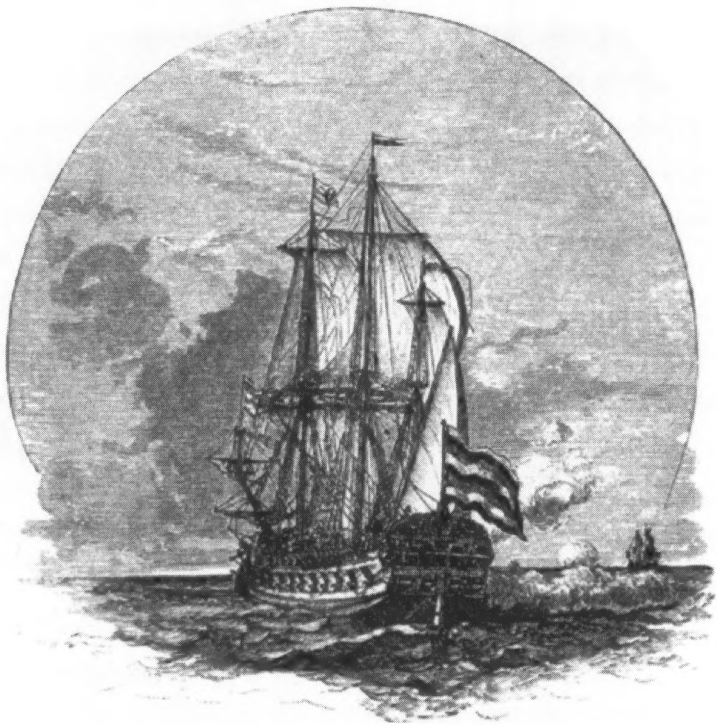
The Ocean Highways

Commerce and Combat on the High Seas 1650-1750

By Todd Caputo



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Introduction

By the middle of the seventeenth century, Europe had entered a period of unparalleled economic and cultural expansion. A continent of kings and queens, merchants and military commanders found itself tempted by the power and wealth that imperialism seemed to offer. But between Europe and the world's untold bounties lay an immense barrier: the sea.

The Age of Discovery, a period between 1400 and 1600 during which European explorers found the way to the Americas and the Far East, had robbed the ocean of some of her mystery. But it had opened European eyes to the rich possibilities that lay overseas. Explorers had spread word of new treasures in strange and far-off lands.

Spices, silks, and teas from the ports of India and China traveled trade routes opened by the voyages of Ferdinand Magellan and Vasco da Gama of Portugal. Christopher Columbus brought the treasures of the Caribbean back to Spain, setting a course for the tobacco and sugar trade and the wave of colonization that would come to dominate America and the West Indies. Every nation that could muster a creaky sailing fleet desired a share of the bounty. The nation that could

master the seas, Europe believed, would command the world.

A seafaring movement blossomed. And at its center was the merchant ship commander, who braved the perils of ocean life for profit and adventure. With his ragged but highly skilled crew, he set out before the balmy trade winds to distant ports. His ship rolled among the whitecaps and churning troughs. The merchant was an agent of his country as well as a profiteer, and often engaged and plundered enemy ships. He set a course between faraway ports, and his trade varied widely: sugar, tobacco, molasses, rum, manufactured goods, even "black ivory," the brutal traffic of African slaves. At sea, there were fortunes to be made.

But there was a high price. Long voyages aboard cramped and filthy ships were the rule. Fierce storms, deadly disease, and marauding pirates ensured that death was never far off. The life of the seafaring merchant offered rich rewards-and great dangers.

By 1650, ocean technology had begun to surge, keeping pace with a growing impulse to pilot the promising waters of international sea trade. Shipmasters fine-tuned their vessels. The bulky-hulled carracks and caravels-- ships that had heralded the Age of Discovery-- evolved into sleeker, lower-riding galleons. The new galleons were faster and more maneuverable even as they carried vast cargoes of the newfound treasures.

Spain and Portugal, after leading ocean discovery and exploration for two centuries, began to fade as maritime pow-

ers, ceding leadership to England, Holland, and France. Over the next century, the tides of political power shifted continuously. Alliances were made and broken, wars were fought and lost, and power at sea grew into a vital component of world status. Between 1650 and 1750, European naval fleets grew dramatically.

As political influence ebbed and flowed, the ocean became a theater unto itself. Sometimes it reflected the power struggles on land, and other times it took on a dynamic uniquely its own. The sea seemed to live by its own rules.

Large trading companies like the British East India Company thrived. But they also provided prime targets for pirates-- international outlaws who prowled the ocean trade routes in growing numbers during the 17th and 18th centuries. Privateers prospered, licensed by their governments to engage and plunder enemy vessels as they took up the slack of naval fleets unable to meet the huge demands of the maritime power struggle. By 1700, the sea had become a vast arena of political conflict, colonial imperialism, and economic opportunism.

The World at Large

The merchant seafarer was wise to keep a close watch on the international scene of his day. Relations between countries were changing constantly, and the shifts usually had direct or indirect effects on high seas trading.

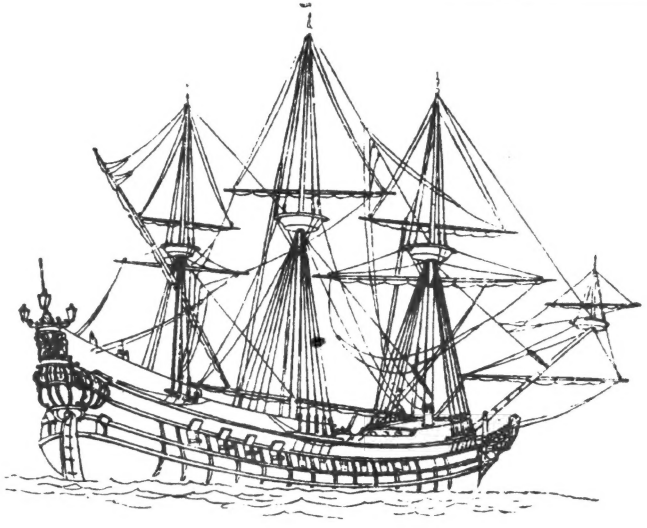
From 1650 to 1700, the Dutch, the English and the French were embroiled in a fierce three-sided struggle for maritime supremacy. The Dutch had made great early strides in sea trading: they had pioneered the construction of small, cheap wooden cargo ships, notably the widely imitated ***fluyt.*** A small cargo ship with a wide rounded hull, the ***fluyt*** became a staple wooden ship of trade era. But by 1650, the English were gaining on the Dutch. That year, England had just emerged from a bloody seven-year civil war that ended with the beheading of King Charles I, and the ascent to power of Oliver Cromwell.

A year after seizing power, Cromwell instituted the first in a series of Navigation Acts, meant to strangle Dutch shipping trade. Under the Navigation Act, goods could be brought into England only by English ships manned by English sailors. Other official regulations followed, and before long, England's legislative offenses led to armed conflict. Between 1651 and 1700, England and Holland fought three wars, which spurred

shipbuilding in both nations and helped to mobilize a mass of seafaring laborers who would fuel the vast machinery of ocean trade.

The English Navigation Acts, which intensified over the next 25 years, were very effective in cutting into Dutch shipping success. Dutch resources, meanwhile, were being drained on dry land by a long-standing war with the French. These and other internal reasons led to the gradual waning of Dutch maritime strength throughout the seventeenth and eighteenth centuries.

England's Navigation Acts dealt a solid blow to the Dutch. But they also affected merchant seafarers of every nationality. The acts imposed heavy regulations and a burden-



The Dutch Fluyt

some government customs system on England and her overseas colonies, whose residents began to turn to the fruits of illegal smuggling. This opened a host of new possibilities for the merchant who was willing to skirt the law. Trade in illicit tea, brandy, wine, and virtually every other type of cargo flourished between 1680 and 1780: the "Golden Age of Smuggling." Some smugglers even had hidden cavities specially built into their ships for the bootleg cargo. Smuggled goods were common in the American colonies, and many port communities worldwide came to depend on the black market for their livelihood.

The Dutch-English trade wars encouraged privateering at sea. State-sponsored naval fleets were still tiny, so European governments began to look to the independent ship owner for help in fighting their foes. A privateer was a private ship commander who had been issued a "letter of marque" by a government. The letter of marque authorized the ship to legally attack enemy vessels and seize their cargo. The privateer, unlike the pirate, would often let the crew of a plundered ship go free. A percentage of the bounty was often reserved for the crown. But privateering, a sort of sanctioned piracy, offered much prestige and wealth to those who dared to practice it.

Hostility at sea also encouraged the development of shipboard weaponry. Even peaceful merchant vessels began to carry cannon as defense against enemy privateers and outlaw pirates. And the ships needed light and reliable artillery. Naval war tactics came of age between 1650 and 1750.

But even armed, merchant fleets faced marauders, storms, and navigational errors. The merchant shipper could always expect to sustain losses at sea. He needed to have the capital to continue despite the losses. Small-scale traders often found it difficult to compete.

By 1700, England had become the world's leading power at sea thanks to the Navigation Acts and a full-scale national effort to expand sea trade. But France, too, had emerged as a major player. King Louis XIV had diverted enough energy away from preening in the splendid elegance of Versailles to build up a formidable naval and merchant fleet. Louis also controlled vast colonial holdings in the New World from Canada all the way to the Gulf of Mexico.

By the turn of the century, France and England, formerly allies against the powerful Dutch, fell into conflict. Portugal and Spain also grew to become players in the game of empire building. Each nation envisioned a vast empire under its control, and saw the other as an obstacle to that goal. The result was a continuous and ever-changing power struggle.

By 1690, the League of Augsburg had allied England, Holland, Spain and others smaller states against France. The conflict that followed (the War of Spanish Succession between 1701 and 1713) had an enormous impact on merchant shipping, fueling a privateering boom and eventually causing an eruption of piracy when that boom dwindled at war's end.

A long series of conflicts over who would dominate

Europe, the colonies overseas, and the high seas themselves ensured that conditions for the merchant seafarer were never predictable.

The Trade

Which goods would the ocean merchant trade, and where would he go to buy and sell his cargo? Between 1650 and 1750, the choices must have seemed unlimited. Some options were exotic and wondrous, while others were filthy and brutish. Sea trade exploded as an international economy grew increasingly dependent on wooden ships to transport goods. European traders found a high demand in the Far East and the New World for European manufactured goods: glass, firearms, knives, textiles, and products made of iron, copper, and brass.

In exchange, the shipper could pick up Eastern luxuries such as tea, silk, calico, and porcelain, which were gaining popularity among the continental markets. The Americas offered molasses, rum, furs, timber, and later, the all-important sugar. In Africa, the international market found the slave trade, which would scar the international landscape for centuries after it lined the pockets of the European and African slavers.

Shipping during the seventeenth and eighteenth centuries was done primarily across the Atlantic and Indian Oceans. Pacific trade would not take hold on a large scale until the nineteenth century when technology made longer-distance travel possible. Trade trends developed with the emerging international market and each strategy of what buy and sell and where to sail had its own prices, its own hazards, and its own rewards.

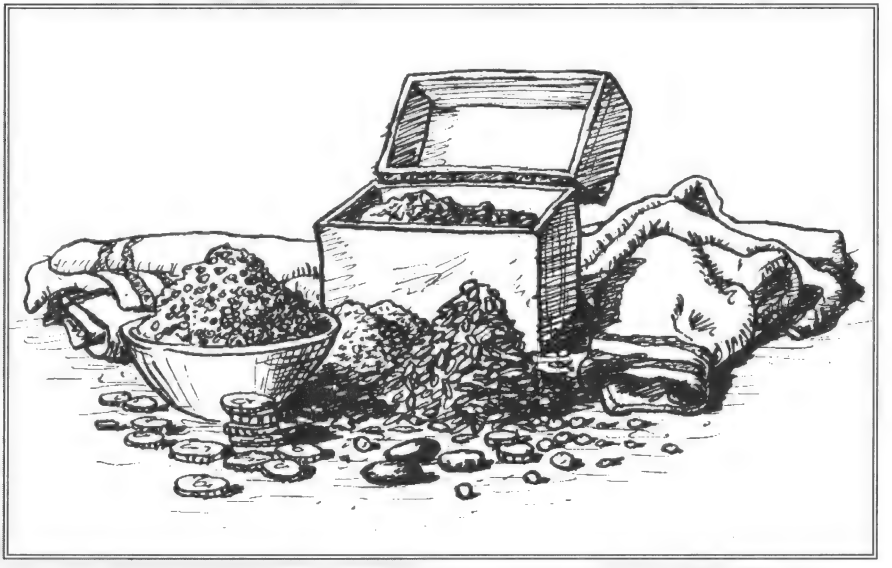
The East

Early in the era of sea trade, European merchants set their sights on the luxury market. Beginning in the 1500s, ships voyaged to the East Indies (India, the Indochinese peninsula, and the Malay archipeligo) to load their holds with precious gems, gold and silver, fragrant oils and exotic spices. A European population in the throes of Baroque-style excess was willing to pay dearly for such exotic goods. And the demand only grew as the era of trade progressed. An obsession with silver, gold, and spices evolved into a high demand for coffee, tea, silk, and muslin, a cotton cloth made in Asian countries.

After 1600 trade with the East Indies, still heavily dependent on luxury goods, came to be dominated by powerful commercial entities known as the East India Companies. During the first half of the seventeenth century, European merchant interests realized that trade in the Far East held the

potential for great returns. But the operation was wildly expensive. The voyage East could take as long as two years through dangerous waters. It required mammoth, heavily armed ships with large crews in order to defend itself from piracy.

To surmount the high costs, merchants organized into companies. The companies consolidated capital from private investors, but drew their authority from the crown. Eventually French, Dutch, and English East India Companies vied for the choice trading posts on the coasts of India, China, and the Spice Islands. They traded in calico, silk, porcelain, tea, indigo, and other luxuries that brought untold profits.



Before long, the East India Companies wielded considerable power. They raised their own private armed forces, operated vast fleets of impressive ships, and played a growing role in the internal affairs of he nations they traded with. The East India Companies engaged in fierce competition with each other, and often engaged in armed conflict.

But eventually one would reign supreme. By the end of the seventeenth century, the Honourable British East India Company ruled the Eastern trade. Backed by a powerful private army, and operating under an exclusive government charter, it had a virtual monopoly within its lucrative sphere of influence. Only the boldest bootleg smugglers, known as "interlopers," would dare to sneak into the guarded waters of the British East India Company. And its power held until the nineteenth century, when critics attacked its monopoly status. Eventually, the English government used legislative means to curb the company's power.

While the East India Companies dominated the Eastern trade routes, there was no shortage of other opportunities for the smaller independent trader. The merchant could remain in the relatively safe waters around Europe. There, short voyages between Baltic ports such as Gottenburg and Stockholm, Copenhagen, St. Petersburg, and Oslo, and ports in and around the Mediterranean such as Lisbon, Madiera, Seville, Livorno, Genoa, and the Canary Islands could yield a wealth of lucrative trade close to home. Many of these routes made for nice and

easy voyages of six months or less that minimized the threat of storms and roving pirates. In this area, bulky commodities such as wine, fish, salt, grain, coal, and metals were the lifeblood of shipping.

Many traders hugged the European coast and prospered. But others chose a more daring strategy.

The Americas

Since the Age of Discovery, the American continent had been seen as a treasure -trove of natural resources. Furs, lumber, sugar, and later cotton and tobacco proved popular throughout the global market. But as the era progressed, North America came to be seen more and more as a colonial outpost, with communities that were always willing to buy imported goods.

Ports in Boston, New York, Philadelphia, and the Carolinas became major stopovers for traders running between Europe, Africa, and the Caribbean. The colonies were known as reliable outlets for smuggled and stolen goods. They had only sparse enforcement by royal naval ships and numerous ports where illicit goods could filter easily into the community.

In the 1700s the American economy began to lean heavily on the cultivation of tobacco and cotton, both labor intensive crops that fueled the rapidly-growing African slave trade.

Another important commercial region was the

Caribbean Sea, and its islands known as the West Indies. Here, the slave-driven sugar trade became a vital component of the international economy. Despite its offerings, the Caribbean was not an ideal destination for the merchant ship. The proximity of English, Dutch, French, and Spanish colonies ensured that privateers infested the Caribbean's tropical waters. In the Caribbean, the merchant ship had to be prepared to fight. In addition, the danger of shipwreck in the Caribbean was high. The area was filled with unseen shoals and jagged reefs, and tropical storms often blew in with devastating swiftness.

The Caribbean had many wild port cities, notably Port Royal on the island of Jamaica. Known as "the wickedest city in the West," Port Royal offered a slew of rowdy ale houses, where a sailor could always find a fight, a prostitute, and plenty of rum. It is no wonder that after the War of Spanish Succession ended in 1713, the Caribbean Sea became a favorite haunt of pirates.

Africa

The era of sea trade struck its most savage blow to the African continent. Africa's tropical shores offered one trade resource that found a high demand in the new international economy: the traffic in human cargo. From the beginning of the slave trade in the 1400s, until its end in the 1800s, an estimat-

ed 10 to 20 million slaves were carried to the New World. But the price for Africa was far higher than even this figure might suggest. Untold numbers of additional African men, women, and children died during the brutal voyage across the Atlantic. During these voyages, captives were packed tightly into cramped and suffocating cargo holds for months at a time. Still more Africans died while awaiting shipment in the cells of slave "factories," or trading posts, on Africa's west coast. Warfare among African states, waged for the purpose of feeding the European and North American slave market, drove lasting rifts into the continent's social order.

And for centuries the demand for slaves seemed endless. In the early 1600s, English settlers in the West Indies had produced tobacco, indigo, and spices for export. But in the 1640s the colonial West Indies saw a massive shift toward the cultivation of sugar. The new labor-intensive crop required immense manpower, and the West Indies became a prime consumer of slave labor. Jamaica, Haiti, the Virgin Islands, Puerto Rico, Guadeloupe and Antigua, all became tropical concentration camps of forced labor. Thousands of Africans toiled under extreme conditions to produce the sugar that Europeans stirred into their tea, which they had grown accustomed to since wooden sailing ships first brought tea leaves back from their voyages to the Far East.

Over the course of the seventeenth and eighteenth centuries, the infamous "triangular trade" became a well traveled

route among merchant ships. The triangle dealt in manufactured goods from Europe, slaves from Africa, and sugar from the West Indies. Each point provided a solid market for one or more of the goods along the trade route. Slaves were traded for textiles, iron, copper, spirits, and all kinds of manufactured goods.

Over the next two centuries, the slave market would also benefit from the North American colonies as they moved toward cotton and tobacco farming. Slavery in North America became an institutionalized brutality, lasting until the end of the American Civil War in 1865. In the United States, as in other slave-dependent nations, slavery has left a devastating legacy.

The life of a slave was often brutal. But the path that brought the slave to his or her final captivity was likely worse. The journey began with the warfare that was waged between African tribal states. Battles would yield captives, which African leaders would sell to the European slave traders. The traders often arrived to find more than a full ship's load of captives available for purchase. And once forced into the machine of international slavery, the lives of the captives were irrevocably changed.

The slave ship was among the most hellish of the modern world's horrors. Hundred of captives were herded into a dark, low-ceilinged hold, and packed so tightly that many could barely move. In the dark hull the air was so foul that healthy

people would often suffocate overnight. Disease spread quickly as sanitation was non-existent in the cargo hold. Food and fresh water were scarce.

Some accounts tell of captives refusing their provisions, choosing to die of starvation on the ship rather than face what was ahead. Those who did try to survive often faced cruelty from the ship's master and crew in addition to the horrors below. The males captives were restrained in iron shackles, and chained one to another. For exercise, the captives were occasionally brought above deck and made to jump. Those who refused or were too weak to jump were beaten.

Routinely, slaving crews would toss overboard the bodies of four or five Africans every day who had died in the cargo holds. Accounts also tell of rebellious captives being hurled overboard, still alive, by cruel captains.

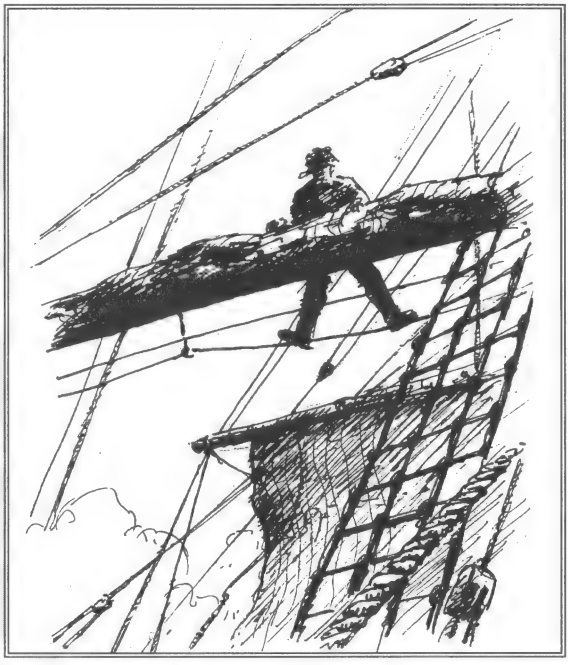
Slaving at sea was a horrific trade for the ship's crew as well as for the captives. The possibility of an uprising was always present. Although weak and brutalized, the slaves always outnumbered their captors. Crew members may have heard stories of the bloody slave revolts aboard slavers like the ***Eagle Galley*** in 1704 and the ***Elizabeth*** in 1721. In one such slave uprising, a vessel on its way from Africa's west coast to Jamaica was overrun by more than 300 African captives, who ultimately killed the ship's captain. When Jamaican planters heard of the struggle, most decided against buying from this particular "cargo" shipment.

In response to the danger of revolt, slave traders often used a divide-and-conquer strategy, mixing Africans of different regions, who spoke different languages, together in a shipment. Not only were the slaves thrown a dark and sickening hold, they often could not even communicate with each other.

The slave trade grew rapidly during the period between 1650 and 1750. By 1726, more than 200 British ships voyaged to Africa to transport "black ivory" every year. In the 1740s, Britain emerged as the world leader in the traffic of human cargo. Thousands of huge ships, loaded with miserable and dying prisoners, plied the waters between Africa and the Americas.

The Seafaring Life

Life on board a wooden sailing ship was a unique journey of the senses. Above deck, an army of sailors constantly tended the ship's rigging, an intricate network that weaved between the towering masts that dwarfed the busy crew. The sound of the work shanty filled the air, sung to the music of the surf and snapping sails. The wind carried the taste and smell of the ocean's salty spray. Below deck, the living quarters were dark and damp. And the stale, stagnant water and waste that collected in the vessel's bilge (the lowest



part of the ship inside the hull) sent peculiar smells into the hold, a stark contrast to the sunny fresh air above. And always, aboard the ship, was the constant and never-ending rolling and pitching, as the ship rocked between swells and troughs. The very ground the sailor walked on was uncertain and unpredictable.

Romantic notions would paint a seafarer's lot as one of adventure and excitement. But while shipboard life had its appeal, it was mostly uncomfortable, tedious, and often violent.

Trade voyages could last anywhere from several months to more than two years. Before long, the sea's scenic blue-green panorama became a maddening uniform vastness that amplified the cramped and squalid quarters on board. Work was hard and constant, and leisure was rare. Food was often rotten, drinking water was putrid, and disease was a constant presence.

The Common Sailor

The sailor was an easily recognized character during the Era of Trade. He was said to walk with a comical lumbering swagger, the byproduct of months spent walking atop a ship's pitching and rolling deck. His face and tattooed arms were badly sun-damaged, giving him a prematurely aged appearance that suited a life often cut short by disease, storm, rum, or battle. His hands were very often scarred or disfigured from accidents while moving heavy cargo or handling the ship's complex rope work.

His speech was distinct. He had an odd accent and used a unique slang that combined nautical jargon, foreign language phrases, and a generous dose of "salty" off-color expressions. The sailor wore wide baggy breeches, a jacket, and cap, and he walked barefoot or on worn leather shoes. Long stretches at sea invited creativity in mending his clothing, and thus his jacket might sport a shark's tooth or seashell for a button.

And aside from his appearance, a contemporary might know the sailor was coming long before he actually arrived. He commonly coated all of his clothing with a tar derived from pine trees, which protected him from wetness. A combination of tar and the salty musk of ocean and hard work made for a peculiar and ever-present aroma.

Rather than a lust for travel or adventure, economic

necessity usually drove a young man into life on the high seas. In the countryside, failed farms forced many youths to flock to the cities, where they managed to find work as shipboard apprentices. Other laborers had heard of the high wages offered aboard privateering vessels during wartime.

And still others had gone to sea unwillingly. Predatory port denizens known as "crimps" collected a fee for each man he could "recruit" for ship board service. The crimp used all means, foul and fair, to lure young men aboard naval, privateering, or merchant vessels. Thanks to a crimp, many a hapless sailor awoke dazed after an evening of alehouse revelry only to look out upon an expanse of rolling waves and find himself "shanghaied" against his will aboard a disreputable ship or under a cruel captain.

Royal navies were often the crimp's best customers. In the seventeenth and eighteenth centuries, impressment, a government-sponsored naval draft system, was common. Impressment allowed government "press gangs" to capture sailors and force them into duty aboard naval vessels. Crimps and press gangs worked side-by-side.

Once in, the seafaring life was one that few sailors managed to escape. The sailor, usually a man of humble origin, became part of a unique subculture that outsiders tended to view with a wary eye.

The nomadic sailing man was often a loner. A life at sea, with its long stretches abroad and constant uncertainty of ever

returning home, was no life for a family man. Because of high mortality and the vigorous work required, most sailors were young men, in their 20s or early 30s. But there were a few "old salts" around to pass on the maritime culture and compare the storms and the battles of old with those of the present day.

The sailor was not religious in a conventional sense. But a lifetime of confronting the omnipotence of the elements and his own vulnerability had sculpted in him a distinct system of beliefs. One account tells of a merchant vessel facing a fierce storm at sea. Amidst howling winds and deafening thunder, a priest seeking passage aboard the ship asked the captain about the ship's chances of surviving the storm. The captain asked the priest go up to the deck and observe the crew there. The priest returned to report that the sailors were screaming and cursing a steady stream. Replied the captain, "We're safe then." But later, the priest reported that the sailors had quieted and were praying. "Ah," the captain said. "Then all is lost."

Until faced with terrible danger, the sailor was not a practicer of any established religion. Instead, he held a dogma of nautical superstition. Sights at sea took on a supernatural air. A school of dolphins, a falling star, or a peculiar cloud formation, for example, were omens of good or ill fortune to come. Eerie tales of unearthly phenomena also circulated among sailors. A glimpse of the Flying Dutchman, a legendary ghost ship said to prowl the waters near the Cape of Good Hope, portended an impending disaster. Mermaids, sea serpents, and the

mythical Kraken-- which crushed hulls with its enormous tentacles and devoured entire crews -- all inspired terror on the high seas.

Sailors were known to bring on board an odd assortment of amulets, intended to bring good luck. To possess the caul, or fetal membrane, of a newborn child was said to be a sure prevention against drowning. Sailors would place advertisements in newspapers offering high prices for such cauls. Also, the feather of a wren, especially one killed on New Year's Day, was reputed to be a safeguard against shipwreck. Many birds were slaughtered to satisfy this superstition, especially considering that the feather's protective power lasted for only one year.

Although uneducated and illiterate, the common sailor was a shrewd student of nature. He saw the meaning in a ring around the moon, a certain formation of clouds, the color of the sky at dusk. He knew how to predict good and bad weather. And he learned to recognize the end of a voyage in the flight paths of birds, freshly broken branches in the waves, the smell of the air, and the color of the sea.

The crew

At port, the sailor would often spend all of the wages he had earned from his last voyage, and then seek out an opportunity to join another crew. He would ask around the tavern, and hear from other sailors about the destinations, wages, and captains of the ships looking for workers.

Once aboard ship, the sailor settled in for the long journey ahead. At the outset of a voyage, a ship was usually very overcrowded in anticipation of losses. Mortality rates were high due to diseases like cholera, typhoid, and scurvy, and accidents were common. Often men fell from the ship's lofty rigging, were washed from the deck by fierce storms, or died during skirmishes with hostile vessels. Accounts tell of ships setting sail with manpower enough for three complete crews in order to ensure that enough hands would remain after death took its toll.

With the exception of many pirate outfits, crews at sea were organized in a well-defined hierarchy. At the top stood the captain or master, who either owned the ship or had been hired by a private outfit to command it. The captain's leadership style set the tone for the entire voyage. A captain could be fair-minded and even tempered. But if he was cruel, he had a number of well-tested tools at his disposal to maintain order and discipline aboard his ship. Flogging was a common practice, administered

to the bare back with a tarred length of rope or a "cat-o'-nine-tails," nine lengths of cord, each about 18 inches long and knotted three times, fastened to a larger rope that served as a handle.

The more sadistic of the sea commanders practiced keel hauling, by which the offender was dragged by rope from stem to stern beneath the ship's barnacle-studded hull, sometimes repeatedly and through icy waters. It is a wonder that any of the victims of keel-hauling managed to survive. For grave offenses, the ultimate punishment was always an option. Hanging a person from the ship's yardarm was a favored method for meting out the death penalty. If a captain's discipline was seen as too harsh or unjust, crew members might desert, as many did, or mutiny and turn to piracy.

Second in command was the helmsman. Usually an experienced navigator, he piloted the ship and oversaw its day-to-day workings. The helmsman provided a link between captain and crew, and usually held much authority on board. Depending on the size of the ship, the crew hierarchy continued downward to include an array of skilled laborers. The head gunner would tend the ship's artillery and ammunition. The carpenter played a vital role in a world of wood. He patched holes in the hull and repaired masts, yardarms, and bulkheads. The boatswain (pronounced "bo'sun") supervised the upkeep of a ship's rigging, lines, and sails.

The ship's surgeon and cook each fought a losing battle

to do his job under less than ideal conditions. The surgeon, who had usually put in a year or two of service at a hospital, performed crude amputations at sea, tended broken bones and bullet wounds, and did his best for scurvy-rotted teeth. The cook made makeshift stews from whatever meager provisions were at hand. Most of his crew would learn quickly not to look too carefully at what they were eating.

The common sailor ranked below the officers. His duties included maintenance of sails and rigging, steerage, moving cargo, and any other duty his superiors assigned to him.

At the bottom of the ship's hierarchy stood the apprentices, often young boys, who went to sea to "learn the ropes" in hope of becoming experienced seamen. On armed ships, young artillery apprentices were called "powder monkeys."

While many crews shared organizational structures, ship hierarchies varied greatly from ship to ship and from nation to nation. Pirate vessels, by contrast, often had particularly loose shipboard organization, a byproduct of their hostility toward social rules and established authority.

A Life at Sea

The life of the common sailor was hard and short. At sea, his existence was tedious, dirty, and rife with hazards. On dry land he was out of place among most of society, and so would haunt portside ale houses with fellow seamen, one of the few places on dry land where he was comfortable. In the taverns, the sailors would drink rum and play cards, dice, and "ten bones" as they exchanged stories and gossip about the latest shipping destinations, wages, and sea captains.

The sailor learned quickly to spot the hazards of his world and do his best to avoid them. In many nations, the scourge of the seafaring community was the government press gang, responsible for recruiting seamen to serve the royal navies. Impressment was a fact of life for sailors in England until the nineteenth century.

For a sailor, there were many reasons to avoid naval service. The commanders were notoriously vicious in their discipline. They often withheld wages indefinitely to prevent desertion. And a sailor had no say in where he might go. Many ports, notably those in Africa and India, were known to sailors as nests of disease. But because of his distinct appearance, the sailor was easily spotted by the press gangs, who were not above coercion and outright kidnapping to recruit manpower.

Even if he managed to avoid impressment, a sailor's lot

was less than luxurious. On board he always faced an intensely communal existence. If he was not fond of his shipmates, he would be in for a long voyage, as the living quarters of the seventeenth and eighteenth century vessel offered scant privacy.

The captain and higher officers had their living quarters toward the ship's stern where the pitching, rolling, and wetness would be minimal. The rest of the crew would be quartered below decks near the bow. Here a sailor would have a small chest to hold his belongings. He would rest in one of several canvas hammocks aligned in a row and spaced a few feet apart. A sailor would quickly grow accustomed to sleeping at sea, but he rarely dozed longer than a few hours at a time as he could be summoned to work at any moment.

The sailor had a superior knowledge of tying knots and connecting ropes, an essential skill to maintain a ship's complex rigging. The Turk's head, the sheep shank, the Flemish eye, and slew of other knots were among the first lessons for a young apprentice. The duties of a sailor also included moving cargo, steering the ship, and keeping watch for other ships, storm clouds, or land. Work was often accompanied by a shanty, or work song, sung or chanted when weighing anchor, hoisting sails, or loading cargo. Music was a staple of maritime culture. Skill with a penny whistle or a banjo was valued in a crew member. Songs told stories of wartime adventures, lost loves, and longing for home.

During rare leisure time, sailors would hang in their

hammocks singing songs, swapping tales, or gambling atop a worn seachest. Some sailors became skilled at a distinctly nautical art form. Using their expertise with rope, sailors would often weave intricate and beautiful decorative patterns from spare rope and twine. Such sculptures may have had a practical use; a belt or a carrying bag. Others, such as maybe a picture frame or a bracelet, were purely decorative.

Drink was a vital part of a seafarer's life. The stereotypical "drunken sailor" was not an entirely undeserved caricature. Alcohol's numbing high must have provided a soothing escape from a life of hard labor and ever-present danger. When it was available, rum or ale was an escape from brutal conditions and a cementer of friendships. It could even be a source of nutrition during long voyages. A sailor who did not drink was an oddity.

Food at sea was horrid. A sailor's diet during the 17th and 18th centuries consisted largely of salt beef and pork, moldy biscuits, and stale stagnant water. Lacking the proper equipment, seafarers only occasionally caught and ate fresh fish. More fortunate crews were given fresh greens from small planting boxes on the ship's sunny deck. But for most, fresh fruits and vegetables were scarce and nutrition was abominable.

During the Trade Era, scurvy was the fatal scourge of the long ocean voyage, causing open sores, rotting gums, and unrelenting fatigue in its victims. It was not until about 1750

that science linked scurvy with the absence of vitamin C. Ships then began to stock limes and lime juice, giving rise to the nickname "limey" to refer to a British sailor.

Health also suffered from filthy sanitary conditions. Cholera and typhoid killed many crewmen. Pungent-smelling bilges became foul with vomit, urine and stagnant water. Rats, roaches, lice, and maggots were frequent shipboard passengers whose populations thrived after a few weeks at sea. Many ships also carried goats, pigs, sheep, and other livestock as well as a wide assortment of pets. Indeed, the sea vessel was often a virtual sanctuary for creatures great and small.

But if shipboard life was squalid, it was not without merriment. One widespread and international ritual always helped to break the monotony of a long sea voyage: the sailor's baptism. The baptism was a rite of passage for raw seamen that occurred when they crossed the equator for the first time. Each first-time sailor was tied to a rope, which was run up the ship's main yardarm. The sailors were hoisted into the air and dunked several times into the ocean to the cheering delight of the rest of the crew. A celebration with singing, dancing, and of course drinking, followed the initiation.

While the common sailor faced the discomforts of constant company, the ship captain endured the pains of isolation. The captain was careful to maintain a healthy distance between himself and his crew, a distance many captains felt was necessary to keep order and discipline. The captain would not likely

have taken part in the "sailor's baptism" festivities. Nor would he have taken the opportunity to swap tales or sing songs with the crew. If he was strict or dealt harsh discipline, his authority was resented and he was viewed with silent scorn by his underlings. If he was kind, he was seen with a detached respect. The social barrier must have made the commander's life at sea a lonely one.

Seafaring Technology

The latter half of the seventeenth century marked the beginning of the world's first real Age of Science. It was a time when new ideas challenged long-standing conventional beliefs and new inventions opened the floodgates of scientific discovery. Isaac Newton, the English mathematician and natural philosopher, had ushered in a new understanding of the universe with his theories on gravity and motion. The microscope, the telescope, the compass, the barometer and other new inventions emerged and remained scientific staples for centuries to come.

Strides were made in the arts as well. The ornate baroque style had set a flamboyant tone for the paintings of Rembrandt and Rubens, the music of Vivaldi and Bach, and the

writings of Milton and Moliere.

By no means did the atmosphere on dry land leave the high seas untouched. Navigation advances added a bit of security to the ocean voyage, and encouraged sea trade. And the vessels themselves reflected the currents of the day. The sailing ship, at that time perhaps the world's most sophisticated piece of technology, became an essential vehicle, an elegant work of art, and a devastating instrument of war.

The ships

The ship builders of the trade era were not content with unadorned hulls of dull wooden planking. Between 1650 and 1750, sailing ships were richly decorated from bow to stern with elegant and complex friezes of paintings, carvings and wooden statues. In an age of ornamentation, the sailing ship became a floating work of art. The ***Sovereign of the Seas***, a majestic English man-of-war, offers a good example of the opulence of ship design during the seventeenth and eighteenth centuries.

Built in 1635, the ***Sovereign*** adorned the seven seas for more than 60 years. On her bow, a wooden statue of the Anglo Saxon King Edgar triumphantly trampled seven Celtic kings beneath its feet. A Roman Cupid watched nearby, riding atop a tamed lion. The ***Sovereign's*** stern sported relief carvings of the Greek heroes Hercules and Jason the Argonaut. Dragons, unicorns, caryatids and characters from the zodiac danced on her

sides and bulkheads. The full length of her middle gun deck depicted a carved frieze of seventeenth century guns, muskets, swords, suits of armor, trumpets and flags. And at her stern sat a giant lantern big enough for 12 men to stand inside. While the ***Sovereign of the Seas*** perhaps took ornamentation to unusual extremes, such decoration was common on all types of ships.

But despite the ornamentation, changes in ship design during the trade era were driven by practicality. The most visible change of the seventeenth century was the shift from the carracks and caravels, with their high forecastles and stern castles, to the sleeker and nimbler galleons. A forecastle (pronounced fo'c'sle) was a high, heavy structure that made the ship bow-heavy cumbersome. The stern castle was slower to disappear. The advantage of a longer, lower, and slimmer hull was on display when the English fleet defeated the Spanish Armada, Spain's legendary war fleet, off Eddystone Rock in the English Channel in 1588.

With a new galleon designed by the celebrated seaman Sir John Hawkins, the English managed to hold off the formidable Spanish fleet. By this time, the galleon had already begun to take the place of the bulky, top-heavy old-style vessels. The galleon's design had eliminated the carrack's bulging forecastle in favor of a sharp beak. No longer did the fore deck look like a medieval castle, rearing high above the waves. But Hawkins' galleon was even longer and slimmer than usual, with an even

lower bow, and it was made with artillery in mind. The longer hull could carry more cannon than the older models, and was designed to pound an enemy with round after round of cannon fire. And therein lay the future of warfare at sea.

As the warship, or man-o'-war, grew larger to carry more firepower, it became increasingly distinct in appearance from the merchant vessel. The galleon served as the model for merchantmen as well as for men-of-war throughout the era. From a distance, it was often difficult to tell the two apart. But there were differences.

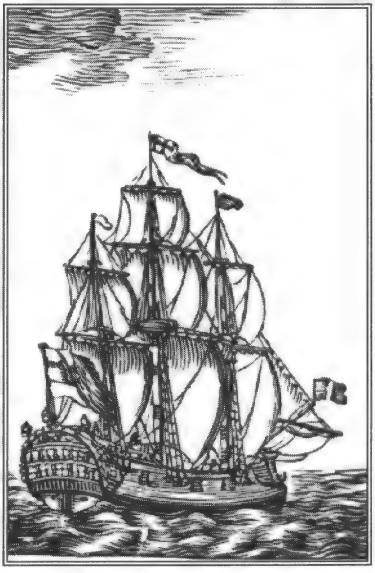
For the most part, the merchantman was a smaller vessel. She had to be able to dock at small ports around the globe, and seafaring nations usually reserved the largest timber for the construction of war ships. Along with size, subtle design differences also helped the veteran seafarer to distinguish the warships from the merchantmen. Warships were more massively framed and planked. They often had an open mid-section rather than the covered upper deck of the merchantman, which served to protect its cargo. But despite the subtle differences, even the most experienced ship commander had some trouble telling the merchantman from the man-o'-war.

Most merchant ships in the seventeenth and eighteenth centuries were built not for speed but for economy and capacity. The result was an international family of small, somewhat awkward sailing vessels built cheaply to maximize cargo space and minimize crew size.

The Dutch ***fluyt*** was perhaps the signature vessel of the small, independent traders. The ***fluyt*** was a light and somewhat roly-poly-looking ship, with a bulging belly to carry its cargo. The largest of the ***fluyts*** were three-masted and about 100 feet long. Short masts made for easy handling by small crews. The spacious hulls and relatively small labor demands of the ***fluyt*** made it a favorite among sea traders.

The Dutch design was widely imitated by other seafaring nations. The French ***pinasse*** and the English ***bark*** were similar in design to the ***fluyt*** and were a common sight along the ocean highways.

The small merchant ships were economical. But when unprotected, the small ships were easy prey for pirates and enemy privateers. Most merchant ships did carry cannon, but the small ***fluyts***, ***pinasses***, and ***barks***, carrying maybe ten or twelve guns, were no match for a large 40- or 60-gun warship. Whenever possible, merchant seafarers traveled in fleets, accompanied by large and well-armed men-o'-war.



But not all merchant ships were small, round-mawed economy vessels. The monarch of

the trade era was the East Indiaman, the large and heavily-armed merchant ship of the British East India Company. The British East India Company dominated European trade with China and India for centuries.

Because of its size, the East Indiaman was easily mistaken for a warship and, in fact, carried as much firepower-- as many as 60 guns-- as most men-o'-war. The size of the East Indiamen grew throughout the trade era. The majestic Dutch, French, and English East Indiamen became as much symbols of national power and prestige as tools of international commerce. Although impressive, the East Indiaman was not built for speed. Voyages to China and India could be long and grueling. The British also built a smaller version of the ship, the West Indiaman, for trade in the West Indies. The sleek West Indiaman was built for the quicker and easier Caribbean voyage.

The trade era also saw several significant developments in ship technology that helped make ships faster, more versatile, and easier to handle. One such development was the invention of the steering wheel. Until the early eighteenth century, ships were steered with an upright pole called a whipstaff. The whipstaff connected directly to ship's tiller shaft, and was operated from below deck. But about 1700, the wooden, handle-studded steering wheel emerged. Now, the helmsman could steer his ship from the deck, where he could see the sails and the sea, and he could communicate directly with the deck offi-

cers. With a wheel, the helmsman had greater control of his ship. He could "feel" its movement through the water. And in rough seas, a wheel was large enough for several men to grab and hold it to steady the boat, a difficult task with a whipstaff.

The ship's rigging also improved during the trade era. The use of smaller, more versatile fore and aft sails reduced dependence on the square-rigged mainsails, large squared sails attached to a the ship's main masts. The shift eased the burden for crews, requiring less climbing into the high rigging of the main masts. The new system also improved a ship's ability to sail and steer in a variety of wind conditions.

Despite the improvements in ship design, a sailing vessel remained a machine that required considerable upkeep. Every few months, or as often as was practical, a ship required a thorough careening. Careening, a lengthy and major project, consisted of beaching the ship and scraping and cleaning its hull. At sea, a hull would often become fouled by barnacles and other marine growth, which hindered a ship's speed and steerage. During a careening, the crew would scrape, clean, and repair the entire hull.

Vessels that sailed in warm tropical seas had an additional worry. They were vulnerable to a tropical marine pest called ***teredo navalis***, or the teredo worm. The worm, actually a bivalve mollusk, would bore through the wood of a ship and rot its hull from inside. Many sea captains were said to be more fearful of the tiny pest than they were of the fiercest tropical

hurricane. Despite many attempted remedies, like smearing a hull with a mixture of tar and hair, the teredo worm problem persisted until metal clad bottoms were developed in the late eighteenth century.

Navigation

To cross an ocean in a wooden sailing ship was a thrilling but terrifying experience. The sight of a never-ending expanse of sea, the sound of whistling wind and creaking wood, and the constant roll of the waves fed an extreme feeling of isolation.

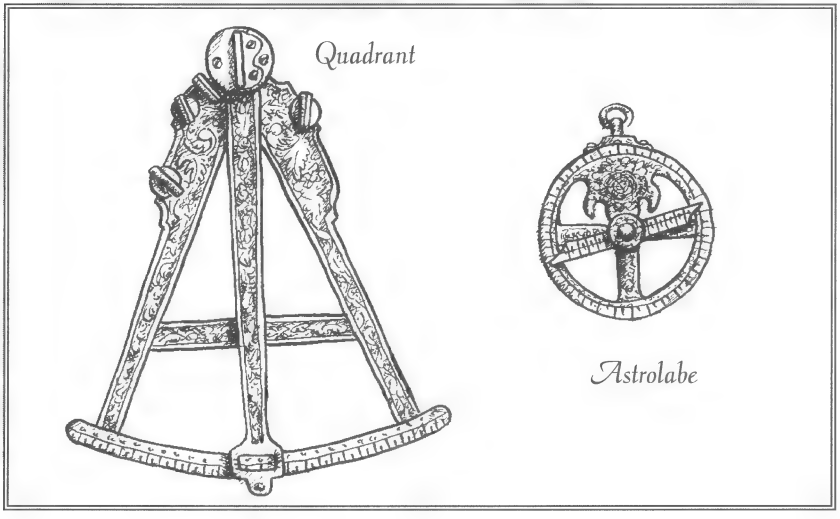
And in the days before sextants, chronometers, or accurate maps, sailors had to contend with never quite knowing exactly where they were. But despite the relatively primitive state of navigation during the trade era, ocean travelers managed to traverse the earth and find their destinations with remarkable accuracy.

By 1650, basic instruments of navigation had come into common use. The compass, the quadrant, the astrolabe, and the chart helped the sea captain to sketch a rough picture of where he wanted to be and how he would get there.

But crews still relied heavily on a time-honored method called "dead reckoning," a simple method of judging a vessel's course based on estimates of time and distance. One technique

of dead reckoning was the use of the "common log." The common log (not the ship's log, or record book) was a piece of wood or a weighted wooden box tied to a long length of rope. The "log" was tossed overboard, the rope trailing after it, to measure the distance the ship traveled. The time element was measured either by a sand glass or by "spoken word," an estimate made by counting a repeated word. Direction was determined by a compass or by observing the pole star's position in the night sky. Magnetic compasses had been in use since the fourteenth century, but were somewhat clumsy and inaccurate. Dead reckoning, together with estimates based on the position of the sun and the pole star, could be remarkably effective.

Dead reckoning was still widely used in 1650, but more sophisticated methods of navigation had emerged. Using crude astronomical instruments, a sea navigator could find his lati-



tude. Latitude, or parallel, sailing was a technique by which a ship would sail to its desired latitude and maintain it, sailing east or west until the destination was reached. The astrolabe and the quadrant, simple hand-held wooden or metal devices, helped in determining latitude by measuring the altitude of the sun or the pole star.

By 1650, charts were also widely used. As far back as the Middle Ages seafarers had begun to chart the waters they traveled. A chart was essentially a map of a coastal area that was based on the observations of officers who had been there. Many seafaring nations established schools of navigation, which received regular reports from seamen, to produce detailed charts. In addition to maps, many charts also included written data on coastal conditions and reports of the trade activity in various port communities. Charts varied in their accuracy and completeness of information. But by the end of the eighteenth century, detailed charts on most of the world's coastlines and trading ports were available to the sea merchant.

Weaponry

The lessons that came out of the English defeat of the Spanish Armada in 1588 brought naval warfare into the mod-

ern era, and established battle tactics that would remain until the atomic age. The sleeker and longer English galleons pounded their Spanish counterparts with round after round of cannon fire, and the technique proved brutally effective.

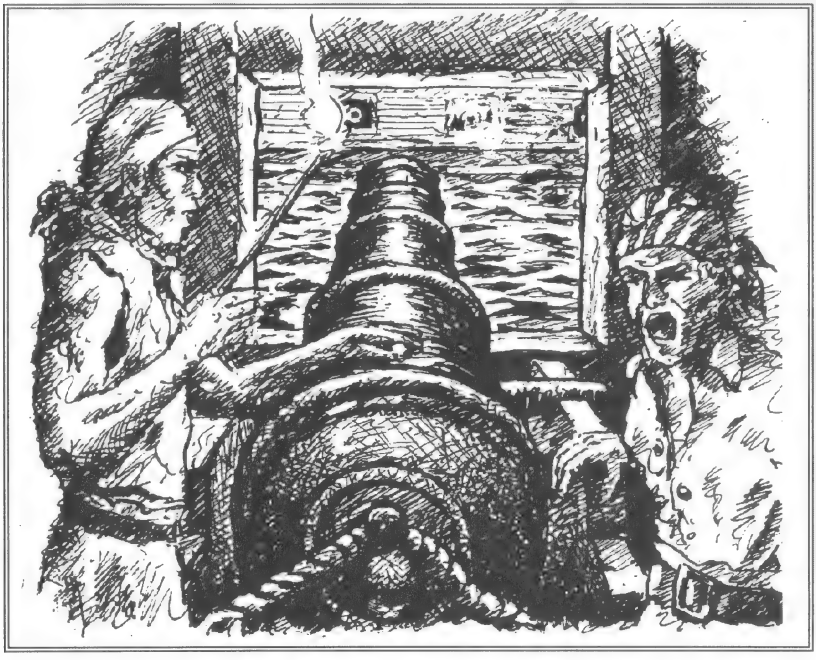
Gone were the days when a sea battle hinged on steering in close to an enemy vessel, boarding, and defeating the enemy crew in hand-to-hand combat. Instead, ships would stand off and bombard each other with cannon fire. Boarding was still practiced but more and more it became the final blow in a battle whose outcome had been essentially determined. With this development warships grew in size, and artillery became the determining factor of naval supremacy.

The new approach called for new battle strategies. Naval combat during the fifteenth and sixteenth centuries was a chaotic affair. Each vessel in a fleet would choose and square off against a single ship of the enemy fleet. The result was a mess of individual skirmishes, each reaching its own bloody conclusion. But in the early 1600s, the Dutch, still a great naval power, introduced a tactic that would endure for centuries to come. Instead of rushing into an engagement as individual fighting units, a fleet's ships would sail into battle in a straight line, as a united war machine. The formation served to protect each ship's vulnerable bow and stern from enemy fire, and it subjected the enemy's fleet to a hail of broadside cannon fire.

As long as an enemy did not manage to "cross the T," or break the continuity of a fighting fleet's line, the unit remained

strong. In most cases, the fleet with the greater firepower would win the battle. Nations soon began to concentrate on building "ships of the line," large fighting vessels with three or four decks of cannon.

Trade era fighting ships carried artillery of various sizes. A large cannon could fire a 60-lb. ball about a mile with some accuracy. A demicannon could hurl a 30-lb. shot; a culverin an 18-lb. shot; and a demiculverin a 9-lb. shot. Ironically, although the battles began to rely increasingly on artillery, cannon fire itself could almost never sink a ship. Rather, the aim was to disable an enemy, either by blasting its masts and rigging, or inflicting sufficient human casualties to render the ship helpless.



Gunmen during the trade era did not expect precise accuracy. Their guns were harnessed by rope to secure points on a ship's wall. To raise, lower, or swivel the muzzle was no easy task. The projectiles were mostly solid balls of lead or iron, although some fleets experimented with chain shot-- a halved metal shell with a length of chain connecting the halves-- for a wider attack that would bring down rigging and masts. Explosive shells would not appear until the nineteenth century.

To minimize damage, a ship in battle would set "fighting sails," meaning that only the main and fore-top sails would be aloft. The others would be taken down, sparing them from possible damage and freeing as many hands as possible to man the artillery.

Cannon fire was capable of only minimal damage to an enemy's hull. Only a direct hit with a heavy ball was capable of puncturing a hull's solid planking, and such holes were small and easy to patch. But a ship under siege was still a dangerous place. Heavy iron balls hurtling through the air at enormous velocities were frightening enough. But most injuries came in the aftermath of a hit, when the missile smashed the wood of a ship and caused an explosion of shards and wooden splinters. Occasionally, a cannon ball would hit a crew member directly, but more often, crippling or fatal casualties came from the wooden shrapnel that flew when a ball hit its mark. After 1600, warship crews began the practice of routinely tossing overboard

any extra wooden items, sometimes including furniture and cargo, before entering an artillery battle. Naval warfare was a grisly affair. After many a sea battle, the decks of a man-o'-war or a fighting merchant ship would literally run with blood.

In addition to artillery, fighting crews carried muskets, pistols, swords, and cutlasses for combat at close range. Many portable firearms during the seventeenth century were impractical for use in the wet world of the seafarer. The matchlock musket, for example, required a lit match in order to fire. The flintlock, which overtook the matchlock in popularity during the 1600s, was easier to handle at sea, but was unreliable and accurate only at short range.

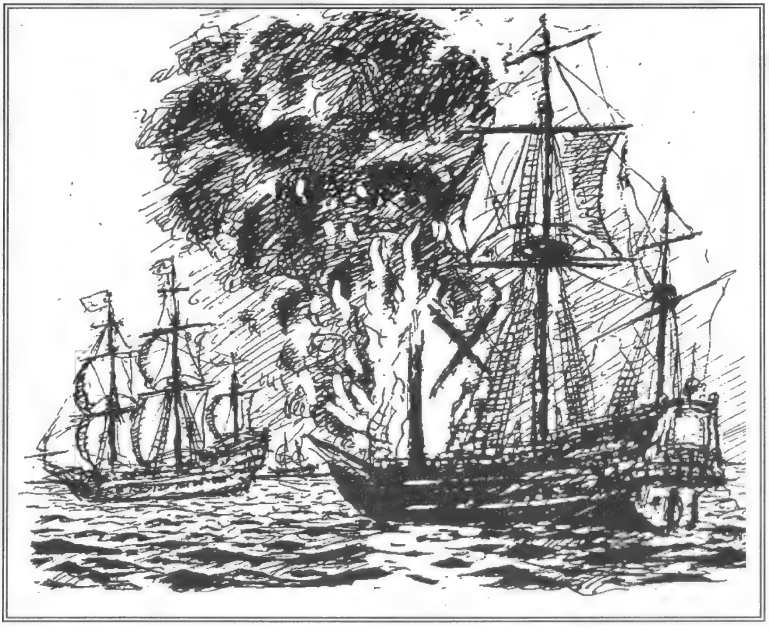
The flintlock pistol was light and portable, and its user could carry numerous loaded pistols at the same time for repeated fire. Accurate up to about 20 yards with a one-ounce ball, pistols were a favorite among pirates, many of whom wore several in their belts, perhaps more as a terror-inspiring affectation than for use in battle. Swords, cutlasses, pikes, and axes were also kept handy on a ship's deck for hand-to-hand combat. Some crews fashioned makeshift hand grenades-- glass bottles filled with gunpowder, shot, and chunks of iron.

The new age of naval battle brought one spectacular innovation that often complemented artillery and hand-to-hand combat. The "fireship" was a fiendish and terrifying invention that gained favor among war fleets in the seventeenth century. The fireship was often an old, unassuming, and expendable

merchant ship transformed into a formidable weapon. The idea was to set fire to the vessel, and ram it into an enemy ship to burn it and its crew.

The fireship was prepared by a specialized team. The team rigged the entire hold of the ship with pitch, oil, and gunpowder, and packed it with kindling wood and other flammable material. Ventilation ports were cut and wooden chimneys built to carry the flames up into the vessel's sails and rigging. Hooks were tied to the fireship's yardarms to grab hold of the victim's rigging. Often phony wooden cannon muzzles would poke through the gun ports to disguise the fireship as an ordinary ship of the line.

Once its target was sufficiently crippled by artillery, the



fireship would go to work. Its cool and dedicated crew of a few well-paid men would sail toward the victim and maneuver against the enemy ship on its windward side.

At the right moment, the fire would be lit, and the crew of the fireship would row off to safety in a longboat, leaving the fireship to explode into flames, igniting its victim before sinking into the sea. Judgment and timing were vital for the fireship crew. To outside observers it must have been a spectacular show. But for the crew of the target vessel, the sight of a fireship with its leaping flames and choking billowing smoke, on an unalterable and deadly collision course, was terrifying. It was said that men jumped overboard in a panic, preferring to drown rather than go up in flames with the doomed vessel.

Pirates

To the honest merchant seafarer, a trade voyage was rife with the hazards of rough weather, enemy fleets, disease, and navigational error. But the danger did not end there. A voyage could turn deadly with the crack of a cannon if a ship had the misfortune to meet with the skull and crossbones.

Piracy on the high seas has long captured the popular imagination. Men like Edward Teach, better known as "Blackbeard," and women like Anne Bonny and Mary Read have become the stuff of legend. Much that has been written of

the pirates of this era has been exaggerated and romanticized, so it is often difficult to distinguish fact from history. Nevertheless, tales of thievery on the high seas, of an outlaw subculture that flouted authority, and of colorful and diabolical seafaring characters, are based firmly in fact.

Pirates were a common menace during the seventeenth and eighteenth centuries. Social and political forces were often behind an honest sailor's descent to lawlessness. And the harsh life of the honest merchant sailor made piracy a very real, even appealing option. It was an option that many chose. Some estimates point to an average pirate population of about 2,000 at any point between 1650 and 1750. And though no pirate is known to have ever buried his or her stolen treasure, leaving only an enigmatic map marked with an "X," many oft-told tales of thievery and flight on the high seas have the ring of truth.

Madagascar

Piracy was not a new phenomenon in the seventeenth century. Undoubtedly, there has been crime on the high seas ever since the first seafarers set out in simple boats. But with the proliferation of ocean commerce during the seventeenth and eighteenth centuries, and the constant power struggles between nations, piracy grew and developed into a culture with its own rules, its own leaders, and even its own territories.

Tales of piracy haunted even the earliest ocean traders.

Barbary corsairs, the dreaded Muslim seafarers of Algiers on the northern coast of Africa plundered the coasts of Spain during the sixteenth century. The Muslim corsairs were known to seize merchant cargoes and sell Christian crew members into slavery. Later, European pirates would hear of the rich treasures of the Great Mogul, India's Muslim ruler, and prey on Muslim ships with equal brutality.

Piracy expanded during the seventeenth century, as new colonial ports offered growing opportunities to profit from illicit goods. Maturing naval fleets were often too busy fighting each other to police the ocean highways. By the end of the seventeenth century, a scattering of independently operating rogue vessels had evolved into a loose confederacy with its own culture-- a confederacy in need of a home base.

Madagascar, the world's fourth largest island, lies about 500 miles off the eastern coast of the African continent. Strategically situated along the Euro-Asian trade route, it had become a well-established rest stop for merchant vessels by the end of the seventeenth century. Sea captains would stop in Madagascar to replenish their stocks of food and fresh water and to repair and maintain their vessels. The island's numerous bays, coves and harbors provided ample opportunity for rest and refreshment. Fresh water, citrus fruit, and game was plentiful. And the native people of Madagascar, who were of Malaysian-Polynesian origin, were generally hospitable to visitors. And perhaps most importantly, the island had not been

successfully colonized by any European nation. Rather, it was governed loosely by a scattering of independent tribes, many of which ran successful trading operations based on the intercontinental sea traffic that frequented the island.

And the same characteristics that made Madagascar so appealing to merchant crews made it a favorite of pirates. A pirate vessel on the run from authority could anchor in any of thousands of hidden inlets, where its crew could relax, divide its spoils and keep a careful watch for other ships. Despite the island's prime location, ship traffic was generally sparse, and the island's huge size made it easy to avoid other vessels. And because the island was unclaimed by Europeans and free from any strong authority, it was basically lawless.

In the last decade of the seventeenth century, piracy was on an upswing. England was now at peace with Spain after a long period of war. English hostility now focused on France, and the new political alignments played havoc for many legitimate privateers. The English buccaneers who had grown fat off the spoils of the Spanish ships they plundered in the Spanish Main were at an impasse. No longer did they enjoy a government sanction to attack the slow cargo-laden Spanish ships. The French men-o'-war, their new targets, were stronger and more heavily armed than the Spanish.

Around the same time, word spread of immense treasures of gold, silver, and jewels carried across the Arabian Sea and the Indian Ocean by the ships of the Great Mogul, India's

Muslim leader. Many of the displaced English privateers headed east to plunder the vessels of the Muslims. Religious intolerance helped justify the plunder that targeted the non-Christian "sinners," but above all, the surge in piracy in the east was driven by profit.

Some pirate vessels did collect a handsome haul from the Indian ships. The English pirate captain Henry Every was revered in outlaw circles when word spread of his raid on two Moorish vessels, the ***Fateh Mohamed*** and the ***Gang-I-Sawai*** in 1694. After vicious exchanges of gunfire and bloody hand-to-hand battles, Every's crew overcame both Indian vessels.

The English pirates reportedly savaged the defeated crews, killing the Muslim passengers as well as soldiers after stealing their money. A number of Turkish women on their way to join the harem of an Indian dignitary also suffered the savagery of Every's crew. To avoid gang-rape, some of the young women were said to have flung themselves overboard.

But the haul, including chests of jewels, gold, ivory, and other valuables, made rich men of the pirate crew. They did not, however, live to enjoy their spoils. Most of the crew members were caught handily while trying to hide in the port towns of Ireland and England. They were tried and hanged for their crimes.

The pirate surge in the Indian Ocean naturally spilled over into the waters around Europe and Africa. And Madagascar slowly but steadily emerged as home base for a

kind of outlaw nation. As pirates retired to an island life or took extended breaks to live off the haul of a successful raid, small settlements developed.

In the last decade of the seventeenth century, a shadowy ex-pirate named Adam Baldridge established a very successful trading operation on an island just off Madagascar's east coast. Baldridge soon became the major supplier of pirate ships that streamed into the Indian Ocean at the turn of the century. He built a large stockade armed with guns overlooking the harbor of St. Mary's Island. Under his guidance, the loose and scattered settlements became a kind of outlaw state. For several years, Baldridge lived in regal splendor and became the defacto governor of a thriving population of pirates and ex-pirates, and their families.

But toward the end of the seventeenth century, Baldridge and his pirate city were living too high for European authorities. Legal crackdowns and the growing presence of the British Royal navy just before 1700 all but killed the Madagascar pirate confederacy.

But piracy was far from dead.

The Caribbean

If legal crackdowns and naval threats dealt a serious blow to piracy in the East, the War of Spanish Succession

between 1701 and 1713 fueled a new surge in the West.

The war pitted France under Louis XIV against a confederation of England, Holland, Austria, Prussia, Sweden, and Denmark. At stake was the throne of Spain, left vacant after the death of Charles II. When war broke out, the demand for privateers soared. Any rogue with sailing skills, a ship, and a few cannons could secure a letter of marque from an array of nations to prey upon opposing ships. The pay was good and the opportunities were plentiful.

But when the war ended in an English victory in 1713, the seas crawled once again with displaced and battle-hardened sailing men. The shift from privateer to pirate was an easy one. Fleets of former privateers flocked to an area they had come to know well during the war: the Caribbean Sea. There, the Bahama Islands offered many of the same appeals that Madagascar had offered years earlier. A group of more than 700 islands, the Bahamas had many large harbors, food and water, and a virtually non-existent government, not to mention the clear turquoise waters and sandy beaches that lure modern day tourists.

By 1715, two years after the War of Spanish Succession, more than two thousand former privateers, now operating as freelance outlaws, had settled on the island of New Providence. By contemporary accounts, the pirate island was a wild place. Rowdy pirates crowded portside taverns to drink, gamble and spend their ill-gotten cash on the company of prostitutes.

Rotting garbage lined the streets, and the decaying hulls of captured ships littered the beaches. Raucousness in the taverns and ale houses often turned to violence as the only authority was that of the pistol and cutlass.

In 1718, the English government once again moved to snuff the explosion of pirate revelry that blazed in the tropics. This time, the pirates were tamed largely through the actions of one man: Woodes Rogers. Rogers, himself a former privateer who had commanded daring wartime raids against the French, was sent by the English crown to shut down piracy in the Caribbean.

A soft-spoken but stern leader, Rogers was named Captain General and Governor in Chief of New Providence. He approached the pirate infestation with remarkable insight. Characteristically, almost half of the pirates of New Providence fled immediately upon Rogers' arrival. Why fight the government, they seemed to reason, when one could easily relocate and continue to plunder elsewhere.

To those who stayed, Rogers immediately offered pardons. All who would renounce piracy and agree to settle honestly on the island would be forgiven their past crimes. Few who accepted the pardons did so with honest motives, but the move helped to erode the outlaw strain. Rogers even went so far as to ask a few key pirate figures to join his new government. Remarkably, some actually went on to become official and effective agents of law and order. A few of the pirates of New

Providence stayed on and vowed to fight the new governor. But in the end Rogers won, and by 1720, he had managed to build New Providence into a largely legitimate outpost of the crown. The pirate confederacy in the Caribbean had been tamed.

Once again deprived of its home base, the confederacy had scattered. Pirates no longer held the power that had accompanied the outlaw pseudo-states of Madagascar and New Providence. The Golden Age of Piracy, which lasted from the 1692 until the 1720s, had ended.

A life of piracy

For the seafarer during the era of trade, a life of piracy may at times have seemed a desirable option. Certainly piracy had its advantages. According to contemporary accounts, a pirate ship was more democratic and had a less rigid hierarchy than a merchant or naval vessel. Discipline was generally not as severe, and the outlaw sailor had a greater say in the affairs of the ship. And piracy had another appeal: the visions of riches that danced in the pirate's head.

On the other hand, violence was a way of life for the pirate. He never quite knew the fire power of his target, nor which of his victims might put up a fight. And there was always a chance that a pirate would be caught and face trial. The penalty for piracy was death by hanging, and many a convicted

sea rover met this fate.

Pirate ships came into being in many ways. Some pirates would begin with nothing and steal an unguarded ship from a harbor. Others would set out as legitimate merchants or privateers, but would fail in their intended mission or run into bad luck and resort to lawlessness. And still other pirate outfits may have sprung from mutiny. Numerous accounts tell of renegade crews revolting against an unpopular commander, setting him to sea in a dinghy, and hoisting the black banner.

Once free and under sail, a pirate ship would choose a region and prowl, keeping close watch on the seas for an unarmed merchant vessel. Once a potential victim appeared,

the pirate ship would give chase. When it caught its prey, the pirate crew would often give the defeated sailors a chance to join their outlaw band. Because the alternative was to be killed or at least set adrift, many took the offer. Often, pirates would build powerful fleets of seized vessels.

While many captured crewmen might join their attackers, defeated captains seldom had such an option. So intense was the pirate's contempt for law and order that he viewed any authority figure with a violent and sneering revulsion. Pirates routinely tortured captured officers in cruel and innovative ways. One account tells of a pirate captain making a merchant officer eat his own severed ears. Another would tie an officer to the mast and let his crew whip, shoot, or otherwise brutalize him. No contemporary account, however, tells of any pirate ever making a victim "walk the plank."

The pirate's contempt for authority also manifested itself in more amusing ways. Several accounts tell of mock pirate trials, during which a supposed offender would be "tried" by a "jury" of his raucous pirate comrades. At least one such trial was complete with mock barristers and a "judge" sporting a mop for a wig.

At its height, the pirate confederacy came to have its own culture, which included distinct language, rules, and symbols. The symbol most often linked to piracy is the Jolly Roger, a black flag emblazoned with a white grinning skull and crossbones. The flag and its variations were in fact flown by many

pirate ships during the seventeenth and eighteenth centuries.

The French pirate Emanuel Wynne is believed to be the first pirate to fly the skull and crossbones. Wynne raised the banner during a skirmish with an English naval ship off the coast of Africa. Blackbeard was known to fly a black flag depicting an entire skeleton holding a bleeding red heart. And the infamous pirate Bartholomew Roberts flew a banner of a skeleton clutching an hour glass.

Pirates also developed their own slang. To join a pirate crew was euphemistically referred to as going "on the account," meaning that the sailor agreed to abide by the ship's rules and carry out his duties for a share of the ship's plunder. Pirate crews often held democratic elections to determine who would command the ship. But unlike the captains of legitimate trade vessels, a pirate captain did not enjoy ultimate authority aboard his ship. His crew could overrule his decisions.

Blackbeard

An exception to the rule of loosely-run pirate ships was the fleet commanded by Edward Teach, the dreaded pirate who ruled his crew with an iron fist.

If ever a man was born for a life of piracy, it was Teach. A solid hulk of a man, Teach was known for his enormous appetite, his brutish strength and his cold cruelty. His steely,

dark eyes were said to peer fiendishly from just above a thick, dark thatch of beard which curled down to the middle of his belly and gave rise to his infamous nickname: Blackbeard.

Tales of Blackbeard's exploits have no doubt been stretched and embellished since the days when he terrorized the American coast. But contemporary accounts paint Blackbeard as a dangerous and fearless criminal, a murderer and a thief who delighted in humiliating his enemies and did not hesitate to cruelly discipline members of his own crew. The pirate captain was reported to have said that if he did not kill one of his men every so often, they might forget who he was.

Blackbeard was terrifying to look at. He often tied red ribbons in his matted beard and long hair, and during battle he would insert lighted smoking fuses into his cap so as to resemble a demon. He would carry as many as six loaded pistols in a strap across his chest, and a cutlass tucked into his belt.

His precise origin is unknown, but he is said to have been born in England in the late 1600s. He was reputed to have served as a privateer in the West Indies during the War of Spanish Succession. When the war ended in 1713, he turned to a life of crime, settling in with the booming pirate subculture in the Bahama Islands. Soon, Blackbeard was plundering the Caribbean and the American coast in a formidable ship called the ***Queen Anne's Revenge***, armed with more than 40 guns.

When Governor Woodes Rogers arrived at the pirate enclave in New Providence in 1718, Blackbeard fled to rove the

coast of colonial America. In May of 1718, he headed to the harbor of Charleston, South Carolina where he would commit a daring and abominable act of piracy.

Sighting a collection of well-stocked ships in the Charleston harbor, Blackbeard and his men proceeded to drift a few miles from the mouth of the harbor and lie in wait for the outgoing vessels. Within a few days, Blackbeard's band had captured and plundered five ships, all yielding rich cargoes. One of the plundered vessels, Blackbeard discovered, carried a distinguished passenger-- Samuel Wragg, a member of the Governor's council of South Carolina, who was traveling with his four-year-old son.

About this time, Blackbeard's crew was suffering from a crippling epidemic of syphilis. So the pirate captain thought to use his esteemed captives to get the medicine he needed. Blackbeard sent a message to the colonial council: either send the supplies or receive the heads of Wragg and his boy and watch the port of Charleston burn to the ground.

The council relented, and sent Blackbeard the supplies he demanded. Blackbeard released his prisoners and set sail into the Atlantic, leaving behind a furious citizenry demanding that Blackbeard pay for his crimes.

They would soon be satisfied. In fall of 1718, Blackbeard and his fleet had settled for a rest on Ocracoke Island off the coast of North Carolina. The colonial citizens, hearing of the pirate's presence, appealed to Alexander Spotswood, the

Governor of Virginia, for help.

Spotswood put Lieutenant Robert Maynard in charge of an expedition to capture the dreaded pirate. Maynard caught up with the pirate crew as it lay anchored off Ocracoke, and an early morning battle ensued. The governor's ship traded cannon blasts with the pirates. When Maynard's ship veered in close to Blackbeard's sloop, the pirates unleashed an assault of musket fire, hand grenades, and artillery. Blackbeard's pirates boarded the governor's ship and a fierce rumble erupted, reportedly culminating with Maynard fighting Blackbeard himself in a sword duel.

In the end, Maynard's men held the day. Blackbeard himself had put up a ferocious fight, enduring numerous wounds by sword and pistol. But finally, slashed across the throat, the infamous pirate fell to the ground dead and his crew surrendered.

To celebrate its victory, Maynard's crew cut off Blackbeard's head and hung it from the bowsprit of their ship, sailing back to Virginia with a grisly trophy of the triumph. The reign of Blackbeard had come to an end.

Blackbeard's story has captured the popular imagination for centuries, but Edward Teach is only one of countless outlaws whose bloody exploits were told again and again in taverns and ship cabins during the era of sea trade. The life of Anne Bonny, the daughter of a respected attorney who fled domesticity for a life on the high seas, has become a staple of

sea lore. In 1715, Bonny took up with the notorious pirate called "Calico Jack" Rackham. Together they gathered a crew and plundered the seven seas, with Anne disguised as a man. Following one siege, the story goes, Anne grew fond of a young Dutch sailor. Anne revealed herself as a woman, only to find that the young sailor too was a woman. Mary Read, it turned out, had likewise disguised herself and set out on the open sea. Anne Bonny and Mary Read became friends and sailed for years as pirates.

Tales also circulated of the exploits of the buccaneers, a band of English, French, and Dutch sailors who plundered Spanish ships in the Caribbean during the last half of the seventeenth century. The buccaneers were actually privateers, operating under the orders of governments hostile to the Spanish. The most noted buccaneer, Henry Morgan, led a bloody but bountiful raid on the Spanish outpost of Panama in 1671.

Afterword

Between 1650 and 1750, the wooden sailing ship carried the world into the dawn of a new era. Propelled by the wind and fueled by a hunger for power and profit, the Age of Trade effectively ended an era when nations

could live in self-sufficient isolation. The world was on its way to becoming a vast network of communities with interconnections and dependencies that grew out of the ocean trade routes.

The commanders and crewmen of the merchant vessels could not have known that they were, in fact, major players in the shaping of a modern world. The tools they had were relatively crude and the conditions they faced were harsh as they responded to the world's changing economic and political realities.

But the changes they helped to bring about were enormous. Scientific and technological breakthroughs began to spread quickly. Culture was exchanged between far away places at a rate that was never before thought possible. Ocean traders did not just transport cargo-- they carried new ideas, religions, and philosophies that shook the foundations of many established cultures. The wooden ships helped to make the world more worldly. The changes affected millions of lives.

The shift has not been easy. Many of the developments that emerged from the reign of the wooden ships have been dramatic and painful. The relentless European imperialism that grew out of the era has proved devastating for many cultures. In America, indigenous tribes suffered the pains of destruction, displacement and cultural assimilation. In Africa, the slave trade robbed a continent of its young and healthy. And in India, commercial imperialism led to centuries of conflict.

But the merchant seafarer was only one of countless

agents in the course that shaped the modern world. In his wooden ship, studded with guns and adorned with intricate rigging and towering masts, he set out to make a profit. And on the way, he did his best to enhance the power and prestige of his country and his fleet. His world was fascinating and terrifying, beautiful and brutal.

By the end of the nineteenth century, the steam engine had replaced the sail in almost all trading expeditions. Wind had become obsolete with the rise of coal. In short order, more than 5000 years of sailing ship development became obsolete. The graceful spires that adorned the sailing ships were gone in place of steam-driven engines. Wooden planks were edged out by steel plates and girders.

Such changes had a profound effect on the seafaring culture. The days of marauding pirates and privateers, of "ships of the line" and muzzle-loading cannon, and of cargo holds filled with spices and teas faded into history. A life at sea would never be the same as it was during the shipping boom of the seventeenth and eighteenth centuries. The creaky wooden galleons and bulging ***fluyts*** of the Trade Era had played their vital role in the taming of the high seas.

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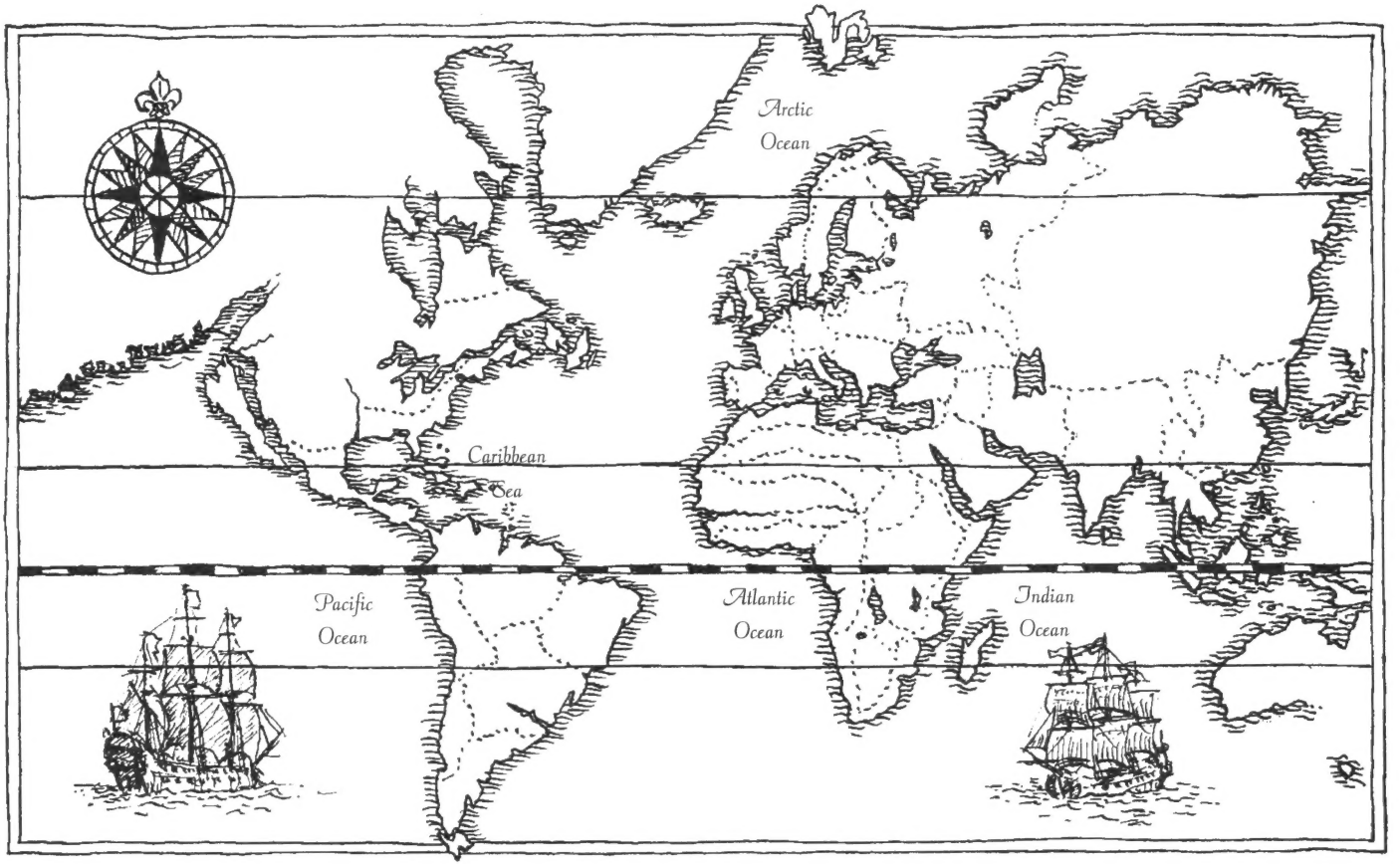
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